

CLAIMS

1. A display device, comprising:

reception means for receiving data transmitted wirelessly from a  
5 plurality of transmission devices;

display means for displaying information; and

control means for controlling a function of the display device,

wherein the control means includes:

reception state detection means for detecting a state of reception of  
10 the reception means; and

display control means for controlling the display means so that the  
display means displays images respectively indicating the plurality of  
transmission devices, based on the state of reception detected by the  
reception state detection means.

15 2. The display device as set forth in claim 1, wherein the reception  
state detection means detects the state of reception, based on at least one  
of electric field strength of a received radio wave and an error ratio of  
received data.

20 3. A display device, comprising:

communication means for performing wireless communication of  
data with each of a plurality of communication devices;

display means for displaying information; and

25 control means for controlling a function of the display device,

wherein the control means includes:

communication state detection means for detecting a state of communication of the communication means; and

display control means for controlling the display means so that the display means displays images respectively indicating the plurality of communication devices, based on the state of communication detected by the communication state detection means.

4. The display device as set forth in claim 3, wherein the communication state detection means detects the state of communication, based on at least one of electric field strength of a received radio wave, an error ratio of received data, and frequency of a request for re-transmission of data based on the error ratio.

5. The display device as set forth in claim 3, wherein the display control means determines a distance from the display device, based on the state of communication detected by the communication state detection means, and controls the display means so that the display means displays the images respectively indicating the plurality of communication devices, based on the determined distance.

6. The display device as set forth in claim 5, wherein the display control means controls the display means so that the display means displays according to perspective.

7. The display device as set forth in claim 3, wherein the communication state detection means detects a state of communication with communication device(s) with which a communication link is established, out of the plurality of communication devices.

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8. The display device as set forth in claim 3, wherein the display control means controls the display means so that the display means displays the images for respectively indicating the plurality of communication devices in a form according to the state of communication detected by the communication state detection means.

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9. The display device as set forth in claim 3, further comprising storage means for storing information regarding rooms in which the plurality of communication devices are placed,

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wherein the display control means performs display control, so as to display an image for indicating each of the rooms, based on a state of communication of communication device(s) placed in each of the rooms, out of the state of communication detected by the communication state detection means.

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10. A wireless communication system made by connecting one or more communication devices with a display device so that the one or more communication devices can wirelessly communicate with the display device,

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wherein:

the one or more communication devices include

communication means for performing wireless communication of data with the display device, and

control means for controlling a function of the one or more communication devices;

the display device includes

communication means for performing wireless communication of data with the one or more communication devices,

display means for displaying and outputting information, and

control means for controlling a function of the display device;

the control means of the one or more communication devices includes

communication state detection means for detecting a state of communication of the communication means, and

communication state transmission means for transmitting, via the communication means, to the display device, the state of communication detected by the communication state detection means; and

the control means of the display device includes

communication state acquisition means for acquiring, via the communication means, the state of communication detected by the communication state detection means of the one or more communication devices, and

display control means for controlling the display means so that the display means displays an image or images indicating the one or more communication devices, based on the state of communication acquired by

the communication state acquisition means.

11. The wireless communication system as set forth in claim 10,  
wherein the communication state detection means of the one or more  
5 communication devices detect the state of communication, based on at  
least one of electric field strength of a received radio wave, an error ratio  
of received data, and frequency of a request for re-transmission of data  
based on the error ratio.

10 12. The wireless communication system as set forth in claim 10,  
wherein the display control means of the display device determines a  
distance from the display device, based on the state of communication  
acquired by the communication state acquisition means, and controls the  
display means so that the display means displays the image or images  
15 respectively indicating the one or more communication devices, based on  
the determined distance.

13. The wireless communication system as set forth in claim 12,  
wherein the display control means of the display device controls the  
20 display means so that the display means displays according to  
perspective.

14. The wireless communication system as set forth in claim 10,  
wherein the communication state acquisition means of the display device  
25 acquires a state of communication with communication device(s) with

which a communication link is established, out of the one or more communication devices.

15. The wireless communication system as set forth in claim 10,  
5 wherein the display control means of the display device controls the display means so that the display means displays the image or images for respectively indicating the one or more communication devices in a form according to the state of communication acquired by the communication state acquisition means.

10 16. The wireless communication system as set forth in claim 10, wherein the display device further includes storage means for storing information regarding rooms in which the one or more communication devices are placed,

15 the display control means of the display device performs display control, so as to display an image for indicating each of the rooms, based on a state of communication of communication device(s) placed in each of the rooms, out of the state of communication acquired by the communication state acquisition means.

20 17. The wireless communication system as set forth in claim 10, wherein

there are a plurality of the communication devices,

the communication means of each of the communication devices  
25 performs wireless communication of data with other communication

device(s) as well as with the display device,

the communication state detection means of each of the communication devices detects a state of communication with other communication device(s) as well as with the display device,

5 the display control means of the display device controls the display means so that the display means displays the images respectively indicating the communication devices, based on the state of communication of the communication devices acquired by the communication state acquisition means.

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18. The wireless communication system as set forth in claim 10, wherein

there are a plurality of the communication devices,

15 the communication means of each of the communication devices performs wireless communication of data with other communication device(s) as well as with the display device,

the communication state detection means of each of the communication devices detects a state of communication with other communication device(s),

20 the display device further includes communication state detection means for detecting a state of communication with each of the communication devices, and

the display control means controls the display means so that the display means displays the images for indicating the communication  
25 devices, based on (i) the state of communication of each of the

communication devices acquired by the communication state acquisition means and (ii) the state of communication with each of the communication devices detected by the communication state detection means.

5           19. A control method of a display device including: reception means for receiving data transmitted wirelessly from a plurality of transmission devices; and display means for displaying information,

          wherein said display device detects a state of reception of the reception means, and displays images respectively indicating the plurality of transmission devices, based on the detected state of  
10           reception.

          20. A control method of a display device including: communication means for performing wireless communication of data with each of a plurality of communication devices; and display means for displaying  
15           information,

          wherein said display device detects a state of communication of the communication means, and displays images respectively indicating the plurality of communication devices, based on the detected state of  
20           communication.

          21. A control method of a wireless communication system made by connecting one or more communication devices with a display device so that the one or more communication devices can wirelessly communicate  
25           with the display device,



wherein:

the one or more communication devices include communication means for performing wireless communication of data with the display device,

5 the display device includes communication means for performing wireless communication of data with the one or more communication devices, and display means for displaying information,

10 said wireless communication system detects a state of communication of communication means of the one or more communication devices, transmits the detected state of communication from the one or more communication devices to the display device, and displays an image or images indicating the one or more communication devices on display means of the display device, based on the transmitted state of communication.

15 22. A display device control program for causing the display device as set forth in any one of claims 1 through 9 to function, said display device control program being for causing a computer to function as the control means.

20 23. A wireless communication system control program for causing a wireless communication system as set forth in any one of claims 10 through 18 to function, said wireless communication system control program being for causing a computer to function as control means for  
25 both of the communication device and the display device.

24. A storage medium readable by a computer, for storing the display device control program as set forth in claim 22, and/or the wireless communication system control program as set forth in claim 23.